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(SWR-0004)

AMENDMENTS

IN THE CLAIMS

Claim 1 (currently amended): A method ~~for~~of producing a coating for the absorbptingon ~~of~~ neutrons created in a nuclear reaction of radioactive materials, the method comprising:

providingwhere at least part of a shielding element composed of a basic material forming a shielding element;

providing a dispersion bath whereby a dispersion of the is provided on a surface predetermined for it with a boron nickel coating in a dispersion bath comprises nickel and at least one of boron and compounds of boron;

contacting a surface to be coated of the shielding element with the dispersion in the dispersion bath thereby providing a coating wherein at least one of boron and compounds of boron are embedded in a nickel matrix on the contacted surface of the shielding element, wherein contacting is achieved by providing containing boron, and during the coating process, at least from time to time, a relative movement is produced between the surface to be coated of the shielding element and the dispersion bath; and

separating the shielding element from the dispersion bath.

Claim 2 (previously amended): The method of Claim 1, wherein the relative movement is produced by moving the element to be coated.

Claim 3 (previously amended): The method as set forth in Claim 1, wherein the surface to be coated is arranged face up in the dispersion bath.

Claim 4 (previously amended): The method as set forth in Claim 1, wherein a dispersion bath with boron carbide is used.

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Claim 5 (previously amended): The method as set forth in Claim 1, wherein a dispersion bath with boron in element form is used.

Claim 6 (previously amended): The method as set forth in Claim 1, wherein the coating is formed chemically.

Claim 7 (previously amended): The method as set forth in Claim 1, wherein the coating is formed electrolytically.

Claim 8 (previously amended): The method as set forth in Claim 1, wherein a coating 350 to 500 μm thick is produced.

Claim 9 (previously amended): The method as set forth in Claim 1, wherein boron or boron carbide with more than 20% by volume is embedded in the nickel matrix.

Claim 10 (previously amended): The method as set forth in Claim 1, wherein boron or boron carbide with more than 40% by volume is embedded in the nickel matrix.

Claim 11 (previously amended): The method as set forth in Claim 1, wherein the dispersion bath is mixed, at least from time to time, during the coating process.

Claim 12 (previously amended): The method as set forth in Claim 1, wherein the method is carried out in a glass tub.

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Claim 13 (currently amended): A shielding element having produced by producing a coating for the absorbpingtion of neutrons created in a nuclear reaction of radioactive materials, the coating manufactured by a method comprising:

providing a where at least part of a shielding element composed of a basic material forming a shielding element;

providing is provided on a surface predetermined for it with a boron-nickel coating in a dispersion bath whereby a dispersion of the dispersion bath comprises nickel and at least one of containing boron and compounds of boron;

contacting a surface to be coated of the shielding element with the dispersion in the dispersion bath thereby providing a coating wherein at least one of boron and compounds of boron are embedded in a nickel matrix on the contacted surface of the shielding element, wherein contacting is achieved by providing , and during the coating process, at least from time to time, a relative movement is produced between the surface to be coated of the shielding element and the dispersion bath; and

separating the shielding element from the dispersion bath, wherein the shielding element is composed of an inorganic basic material with a boron/nickel coating on top, where the coating contains more than 20% boron or boron carbide by volume.

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Claim 14 (new): The shielding element of Claim 13, wherein the basic material comprises an inorganic material and the coating comprises more than 20% by volume of at least one of boron and compounds of boron embedded in a nickel matrix.